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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,156	07/30/2003	Jerrold E. Franklin	109.11	9487

33321 7590 11/30/2005

MAGUIRE LAW OFFICE
423 E ST.
DAVIS, CA 95616

EXAMINER

WILLS, MONIQUE M

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,156

Applicant(s)

FRANKLIN ET AL.

Examiner

Monique M. Wills

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1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/17/04 & 6/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed February 17, 2004 & June 21, 2004 has/have been received and complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, the information disclosure statement(s) is/are being considered by the examiner.

Claim Rejections - 35 USC § 102

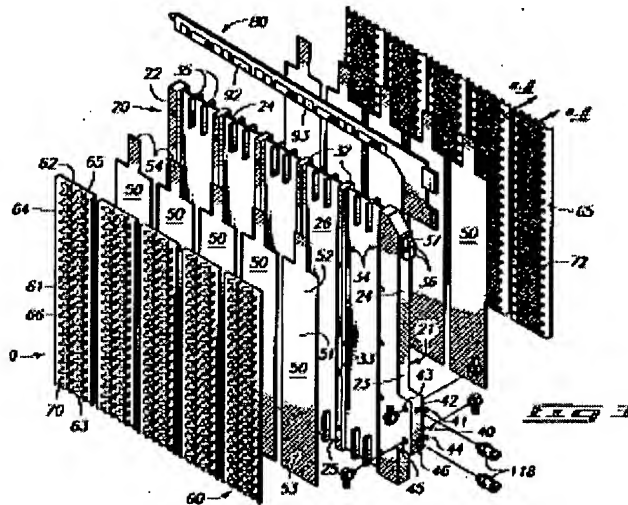
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 9-15, 17-19 & 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuglevand U.S. patent No. 6,468,682.

In re claims 1, 13, & 21, Fuglevand discloses a fuel cell assembly (Figs. 1-4 and 10) comprising: a membrane electrode assembly (101/105/102 in Fig. 10); a bipolar separator plate (20); independently acting compliant electrical contacts (70) disposed between the membrane electrode assembly (MEA); and a conductive laminar electrical contact attached to said compliant members (50).



With respect to claim 9, the contacts (70) as shown in Figs. 2 and 3 are attached to the separator (20) and contact the MEAs via portion 71 (as shown in Fig. 10).

With respect to claims 10, 11 & 13, the arrangement of the contacts as shown in Figs. 2, 3 and 10 having an end affixed to the separator (20) and an extending free end (71) that will effectively operate in a spring-like manner

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upon compression of the stack. In addition these members are clearly defined as “ elastically deformable electrically conductive members (70) at col. 4, ll. 35-38. Therefore, the members (70) are held to embody a spring.

With respect to claim 12, Fuglevand discloses a method for maintaining electrical contact between a bipolar separator plate (20) and a membrane electrode assembly (101/105/102) comprising: placing independently acting compliant electrical contacts (70) between said bipolar separator plate (20) and said membrane electrode assembly in a fuel cell stack. Figs. 2 and 3 are attached to the separator (20) and contact the MEAs via portion 71 (as shown in Fig. 10). Members (70) are clearly defined as “ elastically deformable electrically conductive members (70) at col. 4, ll. 35-38.

With respect to claims 14 & 15, the fuel cell comprises second and third laminar electrical contacts (50) attached to the flexible means (70). See Figure 1.

With respect to claims 17-19, the laminar electrical contacts are pressed by flexible means (70) into electrical contact with the membrane electrode assembly. See Figure 3.

Therefore, Fuglevand anticipated the instant claims.

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-8, 16 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuglevand U.S. patent No. 6,468,682.

Fuglevand teaches a fuel cell assembly as described in the § 102(e) rejection recited hereinabove. With respect to claims 3 & 4, the fuel cell assembly comprises second and third laminar electrical contacts (50) attached to the independently acting compliant members (70). See Figure 1. With respect to claim 5, the arrangement of the contacts as shown in Figs. 2, 3 and 10 having an end affixed to the separator (20) and an extending free end (71) that will effectively operate in a spring-like manner upon compression of the stack. In addition these members are clearly defined as “ elastically deformable electrically conductive members (70) at col. 4, ll. 35-38. Therefore, the members (70) are held to embody a spring. Therefore the members (70) are

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held to embody a spring. With respect to claims 6-8, the electrical contacts (20) are formed into an array having a length and width, wherein the MEA has a respective length and width and wherein the length and width of the array of contacts (20) is approximately equal to the length and width of the MEA (Figs. 1-3). With respect to claim 20, the laminar electrical contacts are pressed by the flexible means (70) into electrical contact with the membrane electrode assembly. See Figure 3.

Fuglevand is silent to apertures in the conductive laminar electrical contacts (claims 2 & 16).

However, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ apertures in the conductive laminar contacts, in order to securely attach the contacts to the compliant members. The skilled artisan recognizes that fastening attachments such as apertures with screw fittings secure abutting members.

Conclusion

Any inquiry concerning this communication or earlier communications

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from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Barr, may be reached at 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MW

11/25/05

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "M. Barr", with a long, sweeping horizontal stroke underneath.